

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-013165**Date Inspected:** 20-Apr-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 630**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site

CWI Name:	Jim Cunningham, Steve McConnell			CWI Present:	Yes	No	
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No	N/A
				Delayed / Cancelled:	Yes	No	N/A
Bridge No:	34-0006			Component:	SAS OBG 2W/3W-D, 3W/4W-D,		

Summary of Items Observed:

The Quality Assurance (QA) Inspector, Rick Bettencourt was on site at the job site between the times noted above. The QA Inspector was on site to randomly observe the in process welding and inspection of the weld joints identified as 2E/3E-E1, 2W/3W-A5 and the following observations were made:

2E/3E-E1

The QA Inspector randomly observed the American Bridge/Fluor (ABF) welders Rory Hogan and Jeremy Doleman setting up the flux cored arc welding (FCAW) machine at the above identified weld joint. The QA Inspector was informed by the QC Inspector Jim Cunningham the back gouge was previously accepted by the SE QC. The QA Inspector performed a random visual and dimensional inspection of the back gouged joint and noted it appeared to meet the general requirements of the contract documents. The QA Inspector randomly observed the ABF welders had previously started the induction heating blankets to ensure the minimum required preheat of 150°F was achieved prior to welding. The QA Inspector randomly verified utilizing a 150°F temperature indicating marker and noted the minimum required preheat had been achieved. The QA Inspector observed the ABF welder to be utilizing a semi automated FCAW track system for welding the above identified weld joint. The QA Inspector randomly observed the SE QC Inspector identified as Jim Cunningham set the FCAW machine to the parameters of the approved WPS. The QA Inspector randomly observed the FCAW parameters were 228 Amps, 24 Volts and a travel speed of 150mm/min. The QA Inspector randomly observed the ABF welder Jeremy Doleman begin the FCAW fill pass, once the semi automated track system reached a certain point the ABF welder Rory Hogan would observe the welding arc for the remainder of the weld. The QA Inspector noted the ABF welders did complete the weld segment E1 on the QA Inspectors shift. The QA Inspector randomly observed the ABF welders remove the induction heating blankets to the weld segment E2, in preparation of completing the back

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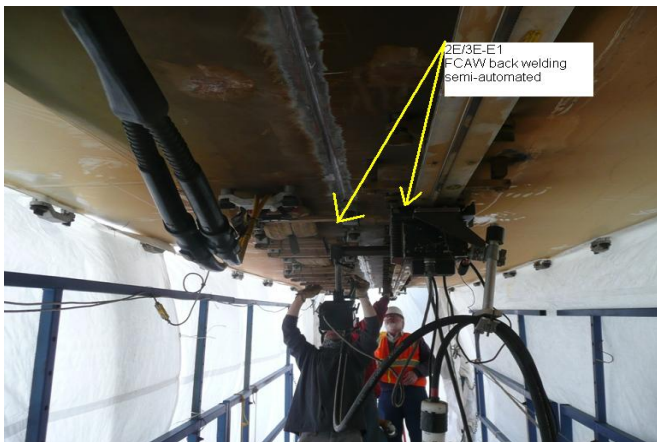
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weld.

2W/3W-A5

Upon the arrival of the QA Inspector it was randomly observed the above identified weld joint was previously completed. The QA Inspector randomly observed multiple areas that were marked for repair. The QA Inspector noted the weld had been previously ground flush with the base material. The QA Inspector observed several areas of under fill and small gouges where the temporary fitting aids had been removed. The QA Inspector noted the areas had been marked for repair with a distinguishing marking directly on the base material. The QA Inspector randomly observed the ABF welder Kenneth Chappell preheating the marked areas with a rosebud torch prior to making the shielded metal arc welding repairs. The QA Inspector noted the ABF welder was utilizing 5/32" E7018 low hydrogen electrodes with 165 Amps. The QA Inspector noted the SMAW parameters appeared to be in general compliance with ABF-WPS-D1.5-1000-Repair rev 2. The QA Inspector observed the SE QC Inspector Steve McConnell was on site and present to monitor the in process weld repairs. Mr. McConnell informed the QA Inspector after the repairs are welded and ground flush, he will perform magnetic particle testing of the areas. The QC Inspector went on to inform the QA Inspector after the MT is complete, the weld will be visually tested again prior to performing the ultrasonic testing.

The QA Inspector noted due to adverse weather conditions including rain and wind, no welding was other than described above was performed on the west span. The QA Inspector noted significant amounts of rain water had infiltrated the inside of the orthotropic box girders at the locations where welding was to take place. The ABF Representative Dan Ieraci informed the QA Inspector no welding was to be performed inside the west span on today's date. Mr. Ieraci went on to inform the QA Inspector if the rain stops some small pick up repairs will be made on the top deck plate at 2W-3W-A.



Summary of Conversations:

No pertinent conversation noted.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammad Fatemi (916)-813-3677, who represents the Office of Structural Materials for your project.

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Inspected By: Bettencourt,Rick

Quality Assurance Inspector

Reviewed By: Levell,Bill

QA Reviewer